

**REMARKS**

By this amendment, withdrawn claims 1, 3, 4, 6, 8, 10, 11 and 13-16 are cancelled. Claim 2, the specification, and the abstract are amended to clarify that each of the hydrocarbon group and the aromatic hydrocarbon group may contain a fluorine atom, an oxygen atom, and/or a carbonyl bond. Support for this change is found in the specification at page 5, lines 13-18. Also, as brought to Applicants' attention by the Examiner, a typographical error has been corrected at page 18, line 9 of the specification. New claims 17-21 have been added. Support for claim 17 is found in originally filed claims 2 and 5 as well as in formulae 17-22 at pages 27-31 of the specification. Support for claims 18-21 is found in original claims 5, 7, 9 and 12, respectively. Claims 2, 5, 7, 9, 12 and 17-21 are presented for further examination.

The objection to the specification raised in paragraph 2 of the Office Action, and the rejection of claim 2 under 35 U.S.C. § 112, second paragraph, raised in paragraph 3 of the Office Action are believed overcome by the foregoing amendments. No further correction is deemed necessary.

The rejection of claims 2, 5, 7 and 12 under 35 U.S.C. § 103(a) over the *J. Org. Chem.* article to Farah in view of U.S. Patent Application Publication No. 2003/0082479 (Hatakeyama) is respectfully traversed.

Farah discloses that the 2-hydroxyhexafluoro-2-propyl (HHFP) moiety can be attached to aromatic rings to form 2-(2-hydroxyhexafluoro-2-propyl)-1-phenol, 4-(2-hydroxyhexafluoro-2-propyl)-1-phenol, and 2,4-bis(2-hydroxyhexafluoro-2-propyl)-1-phenol. However, the claimed compounds have cycloaliphatic structures while the compounds disclosed by Farah have aromatic structures. Furthermore, in instant claim 5 the two HHFP groups are located at meta (i.e., 3,5) positions with respect to the hydroxyl group. Farah does not teach or suggest the claimed cycloaliphatic structures, much less the 3,5 configuration of the HHFP moiety.

Hatakeyama fails to remedy the deficiencies of Farah. Hatakeyama provides no motivation to modify the aromatic compounds taught by Farah, nor does Hatakeyama provide any teaching as to how such a modification could be made.

Hatakeyama discloses a structure having the formula (1n), which is completely different from the structures of instant claims 2 and 5 (see paragraph 20 of Hatakeyama). In the (1n) structure, Hatakeyama discloses that the R7 substituent may comprise an adhesive group, and exemplary structures in which R7 is an adhesive group are illustrated in paragraph 45 of Hatakeyama. Included in the exemplary structures are aromatic structures and cycloaliphatic structures. There is no suggestion in Hatakeyama, however, to convert an aromatic structure to a cycloaliphatic structure, much less a teaching of how such a conversion could be done.

Further, it cannot be concluded from Hatakeyama's listing of exemplary adhesive structures that "in the course of making fluoropolymers having the HHFP moiety, cycloaliphatic structure and aromatic structure in the polymers are functional equivalents and interchangeable" as alleged in the Office Action. In paragraph 45, Hatakeyama merely discloses a listing of nearly forty exemplary adhesive groups that may be introduced as an end group in the formula (1n) of Hatakeyama. Pointedly, several of the exemplary adhesive groups are acyclic structures, which are not even remotely similar the claimed structures. There is no reason to believe that any two of the exemplary structures taken from the list of nearly forty structures in paragraph 45 of Hatakeyama are interchangeable beyond being suitable as adhesive groups in the formula of Hatakeyama.

Finally, the assertion in paragraph 7 of the Office Action that Hatakeyama teaches hydrogenation reactions (ring reduction reactions) or other synthetic routes for converting an aromatic structure into a cycloaliphatic structure is not correct. Hatakeyama is silent as to such conversion mechanisms

and does not teach a process for producing the cycloaliphatic structures of R7. None of the synthesis examples in Hatakeyama comprise R7 having the aromatic structure or the cycloaliphatic structure. Moreover, because it is known to a person having ordinary skill in the art that hydrogenation reactions are highly disfavored when the substrate comprises a sterically complex structure such as the 2-hydroxyhexafluoro-2-propyl (HHFP) moiety, it would **not** have been obvious that the aromatic structures taught by Farah could be converted to cycloaliphatic structures via normal ring reduction.

With respect to independent claim 5, even assuming *arguendo* that a skilled worker would find the motivation to modify the aromatic structures disclosed by Farah, the result would still not correspond to the claimed 3,5 (meta) configuration disclosed in claim 5. Neither reference discloses or suggests such a structure. Reconsideration and withdrawal of the rejection of claims 2, 5, 7 and 12 are respectfully requested.

The rejection of claim 9 under 35 U.S.C. § 103(a) over Farah and Hatakeyama in further view of U.S. Patent Application Publication No. 2002/0160297 (Fedynyshyn) is respectfully traversed.

Fedynyshyn, which was cited for teaching specifically claimed R2 and R3 groups, fails to remedy the deficiencies of Farah and Hatakeyama with respect to claim 2. Claim 9 depends from claim 2 and thus is patentable over the cited references for at least the reasons that claim 2 is patentable. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

In view of the foregoing, the application is respectfully submitted to be in condition for allowance, and prompt favorable action thereon is earnestly solicited.

If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned at (202) 624-2845 would be appreciated since this should expedite the prosecution of the application for all concerned.

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Reply to Office Action  
February 27, 2006

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #038788.52654US).

Respectfully submitted,

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